Artistry in Sound

ONKYO

A-RV401

Integrated Stereo Amplifier

Instruction Manual

• Congratulations on your purchase of the ONKYO A-RV401 Integrated Amplifier. • Please read this manual thoroughly before making connections and turning power on. • Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new A-RV401. • Please retain this manual for future reference.

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Features

- **High Power Output**
  Delivering 100 watts of clean, continuous power per channel into 8 ohms with no more than 0.08% total harmonic distortion, the A-RV401 also boasts effortless drive of low impedance loads.
- **Discrete Output Stage**
  Instead of the IC power amplifier circuitry used in some mid-priced amplifiers, ONKYO opted for a discrete output stage in the A-RV401 to ensure clean drive of low impedance loads. In addition, linear switching makes for minimal distortion. ONKYO's uncompromising amplifier design philosophy is also reflected in the careful selection of the high quality parts used in the A-RV401.
- **Video Capability**
  The A-RV401 allows you to connect two video components – for example a VCR and a laser disc player – at the same time. Copying from VCR-1/VDP to VCR-2 can then be accomplished at the touch of a button. An additional VCR-1/VDP input jack is provided on the front panel to allow quick connections with video camcorders and the like.
- **Multi-Function Infrared Remote Control Included**
  The included wireless remote contol covers virtually all of the A-RV401's functions, including power on/off, volume up/down, audio muting, source direct on/off and input selector switching. It can also control the major functions of any ONKYO cassette deck, CD player or tuner bearing the **RI** mark (turntables also in the U.S.) after you make the appropriate connections with the A-RV401.
- **Source Direct Switch**
  The A-RV401's Source Direct Switch lets you enjoy the purest sound possible from any program source. Switch it on and the music signal is routed directly into the power amp circuitry, bypassing all tone and balance controls.
- **Front Panel Video Jacks**
- **Handsome Fluorescent Display**

CAUTION

"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

- The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

- For models having power cords with a polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

- Sur les modèles dont la fiche est polarisée.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES A FOND SANS EN LAISSER AUCUNE PARTIE A DÉCOUVERT.

Important safeguards

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING

S3126A

7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Polarization** - If the appliance is provided a polarized plug having one blade wider than the other, please read the following information. The polarization of the plug is a safety feature. The polarized plug will only fit the outlet one way. If the plug does not fit fully into the outlet, try reversing it. If there is still trouble, the user should seek the services of a qualified electrician. Under no circumstances should the user attempt to defeat the polarization of the plug.
12. **Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
14. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    - A. The power-supply cord or the plug has been damaged; or
    - B. Objects have fallen, or liquid has been spilled into the appliance; or
    - C. The appliance has been exposed to rain; or
    - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - E. The appliance has been dropped or the enclosure damaged.
17. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Precautions

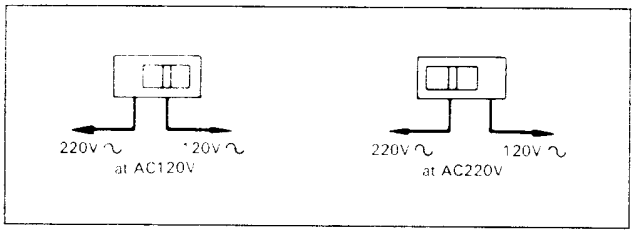
1. **Warranty Card**
   The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.
2. **Recording Copyright**
   Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.
3. **AC Fuse**
   The fuse is located inside the chassis and is not user serviceable. If power does not come on, contact your ONKYO authorized service center.
4. **Care**
   From time to time you should wipe off the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.
5. **Power**
   WARNING
   BEFORE CONNECTING THE UNIT TO AN AC OUTLET, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

USA & Canadian models:	AC120V, 60Hz
Worldwide models:	AC120V, 60Hz/ 220V, 50Hz switchable

Voltage Selector (Rear Panel)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit. Voltage is changed by sliding the groove in the switch with a screwdriver to the right or left. Cofirm that the switch has been moved all the way to the right or left before plugging in the unit. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.



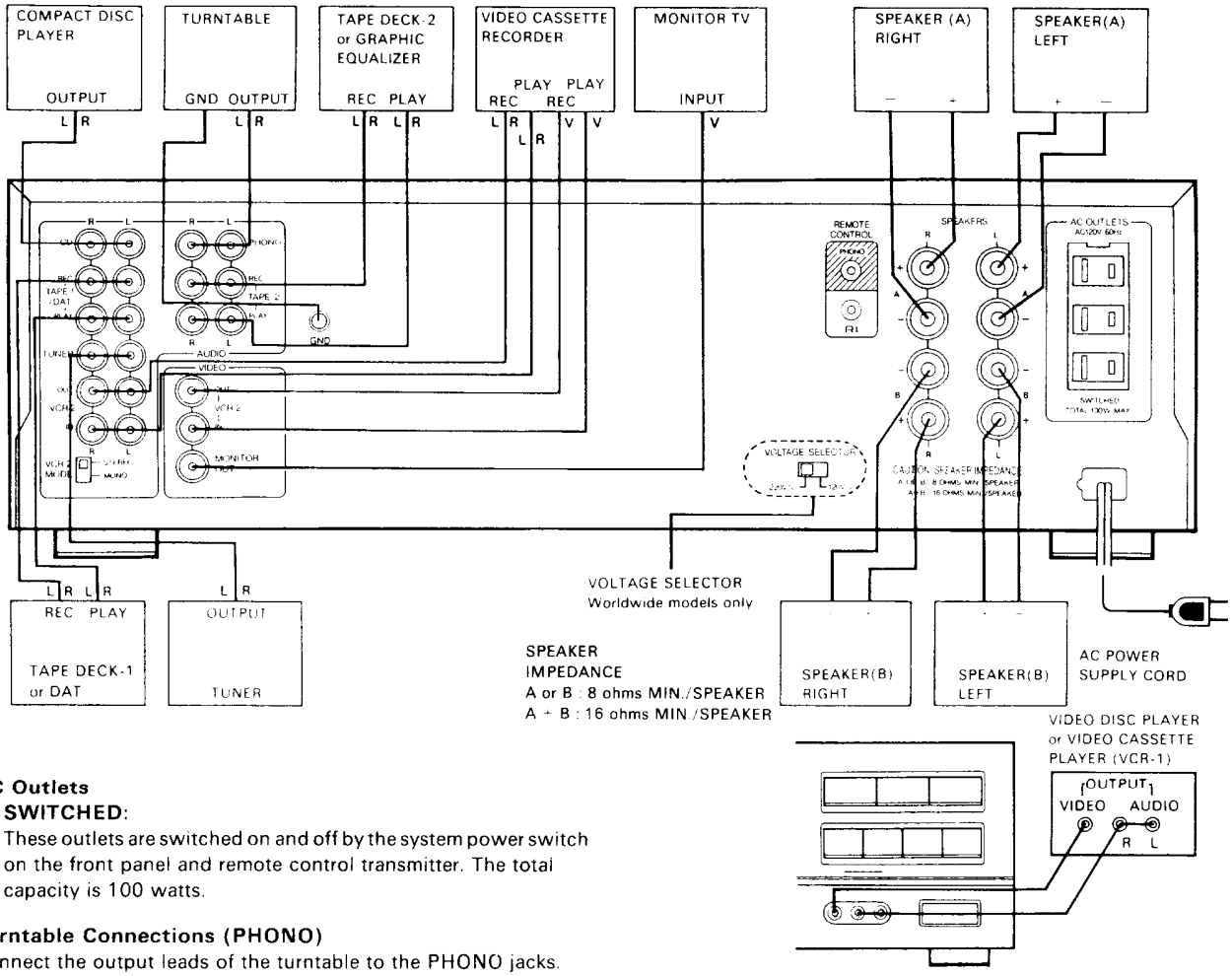
System connections

General

Switch the main power switch off before performing connections. Also be sure to perform left and right channel connections properly.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Aricle 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



AC Outlets

- **SWITCHED:**
  These outlets are switched on and off by the system power switch on the front panel and remote control transmitter. The total capacity is 100 watts.

Turntable Connections (PHONO)

Connect the output leads of the turntable to the PHONO jacks. Be sure to connect the ground (earth) lead wire from the turntable to the ground terminal (GND). Lack of proper ground connection will cause hum. Turntables not provided with GND wires do not need to be connected.

1. Place the turntable on a firm shelf or deck free from vibrations (especially those generated by the speaker system). If the turntable is permitted to pick up such unwanted vibrations, not only with the performance of the unit drop, but distortion in the bass frequencies and howling in the speakers may also occur.
2. Check the turntable instruction manual for any other precautions.
3. The loud noises that occur when connecting and disconnecting the turntable leads, replacing the cartridge or lowering the tonearm could damage the speakers. Always turn the power switch off before making connections.
4. If an ONKYO turntable with remote control jack is used with this unit, the remote control transmitter can also be used to start and stop turntable operation. In this case, the turntable and A-RV401 must be connected with a remote control cable. Insert the plug into the PHONO jack of the REMOTE CONTROL on the rear panel of this unit. (Please refer to "Connections for Remote Control.)

Tuner Connections

Connect an FM/AM tuner to the tuner input jacks. Be sure the left and right channels are connected properly.

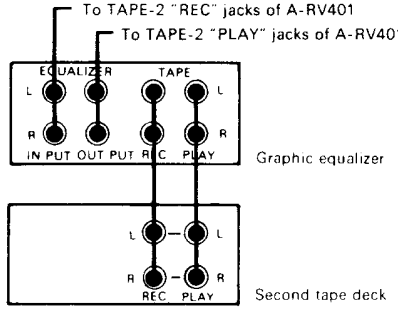
Compact Disc Player Connections

Connect a compact disc player to the CD input jacks. Be sure the left and right channels are connected properly.

Tape Deck (DAT) and Graphic Equalizer Connections (TAPE-1/DAT, TAPE-2)

1. This unit has facilities for two tape decks. If you are using only one tape deck, connect it to the TAPE-1 jacks. If you have two tape decks, connect one to the TAPE-1 jacks and the other to the TAPE-2 jacks.
2. Connect the output leads of the tape decks to the TAPE-1 and TAPE-2 "PLAY" jacks. Connect the input leads of the tape decks to the TAPE-1 and TAPE-2 "REC" jacks of the unit. For more details, refer to your tape deck instruction manual.
3. To connect a graphic equalizer, too, use the TAPE-2 jacks and connect the second tape deck to the tape jacks of the equalizer.

To connect a graphic equalizer and second tape deck to the TAPE-2 jacks.



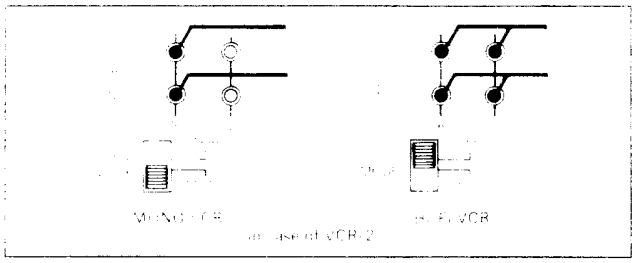
4. If you have an ONKYO tape deck with the remote control jack, connect it to the TAPE-1 jacks. Please refer to the section "Connections for Remote Control" (page 4) regarding connection of the remote control cable.

Video Disc Player (or Video Cassette Player) Connections (VCR-1/VDP)

Use the VCR-1/VDP jacks of the front panel. Connect the VIDEO output of the video disc player to the A-RV401 VCR-1/VDP "VIDEO" jack and the AUDIO output to the VCR-1/VDP "AUDIO" jacks. The VCR-1/VDP jacks are only for playback, there is no REC jack. If the audio output from the video unit is monaural, connect to VCR-2. For more details, refer to the video disc player instruction manual.

Video Cassette Recorder Connections (VCR-2)

1. Connect the VIDEO output of the VCR to the rear panel (VIDEO) VCR-2 "IN" jack and the VIDEO input of the VCR to the rear panel (VIDEO) VCR-2 "OUT" jack. Then connect the AUDIO output of the VCR to the (AUDIO) VCR-2 L and R "IN" jacks. Finally, connect the AUDIO input of the VCR to the (AUDIO) VCR-2 L and R "OUT" jacks.
2. When using a monaural VCR (having a single audio input and output), set the VCR-2 "MODE" switch on the rear panel to "MONO" and use either the R or L audio jacks. If the switch is in the "STEREO" position, sound will be heard from only the right or left speaker system.



3. When using a playback-only VCR, only the output connections need to be performed.
4. For more details, refer to the VCR instruction manual.

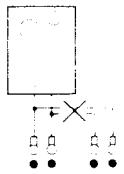
Monitor TV Connection

A monitor TV set can be connected to the VIDEO MONITOR OUT jack.

Speaker Connections

When connecting speakers, proper polarity is important. Always connect the (+) terminal (red) on the amplifier to the (+) terminal on the speaker and the (−) terminal (black) on the amplifier to the (−) terminal on the speaker. Two separate pairs of speaker systems can be connected to this unit at once.

- The load impedance of each speaker system connected to this unit must be at least 8 ohms. (A or B: 8 ohms min. SPEAKER A + B: 16 ohms min. SPEAKER)
- When using only one speaker or when you wish to listen to monaural, the single speaker should never be connected in parallel to both the right and left channel terminals at once.



- Do not use unnecessarily long or extremely thin speaker leads. If the DC resistance of the speaker leads is too high, the damping factor will decrease.

Connecting Speaker Cables

1. Remove about 1/3 inch of insulation from the end of the speaker cable.
2. Twist the exposed copper strands together tightly.
3. Unscrew the speaker terminal part way by turning it counterclockwise.
4. Insert the exposed copper portion of the cable all the way into the opening in the speaker terminal.
5. Tighten the terminal screw by turning it clockwise.
6. Check to make sure that none of the uninsulated copper portion of the cable is exposed.

CAUTION:

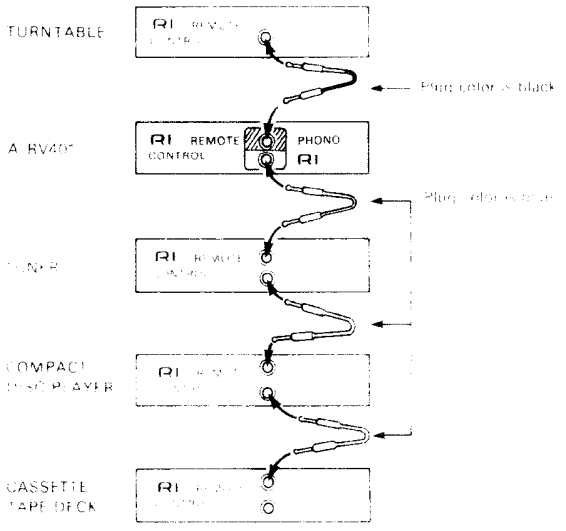
When using banana plugs, make sure the speaker terminal screws are screwed in firmly before inserting banana plugs.

Connections for Remote Control (REMOTE CONTROL)

NOTE:

Of the ONKYO tuners, turntables, cassette decks, CD players, etc., that can be remote controlled, some models have the **RI** mark and some do not. (**RI**: Remote Interactive)

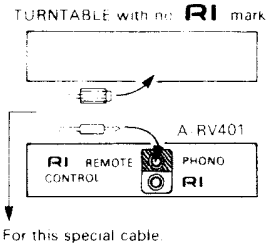
A tuner, cassette tape deck, compact disc player and turntable that have the ONKYO **RI** mark can be operated, using the accessory remote control transmitter.



An **RI** remote control cable equipped with a 1/8" (3.5mm) diameter miniature two-conductor phone plug is attached to the A-RV401 and to any turntable, tuner or compact disc player with the **RI** mark.

Insert the accessory **RI** remote control cable plug attached to the ONKYO turntable with the **RI** mark into the PHONO of the A-RV401's REMOTE CONTROL. To use an ONKYO compact disc player and cassette tape deck and tuner with the **RI** mark, insert the accessory remote control cable plug into the REMOTE CONTROL jacks. As far as connecting sequence is concerned, it doesn't matter whether the cable is connected from the A-RV401 to tuner or to the cassette tape deck or to the compact disc player. The connecting sequence is fixed only for the turntable. The remote control transmitter is operated by facing it towards the remote control sensor of the A-RV401.

- ONKYO turntables that can be remote controlled but do not have the **RI** mark. This equipment has a 7-pin DIN jack on the rear panel. Connect this jack and the jack on the rear of the A-RV401 with the special cable for this purpose, which is sold separately.

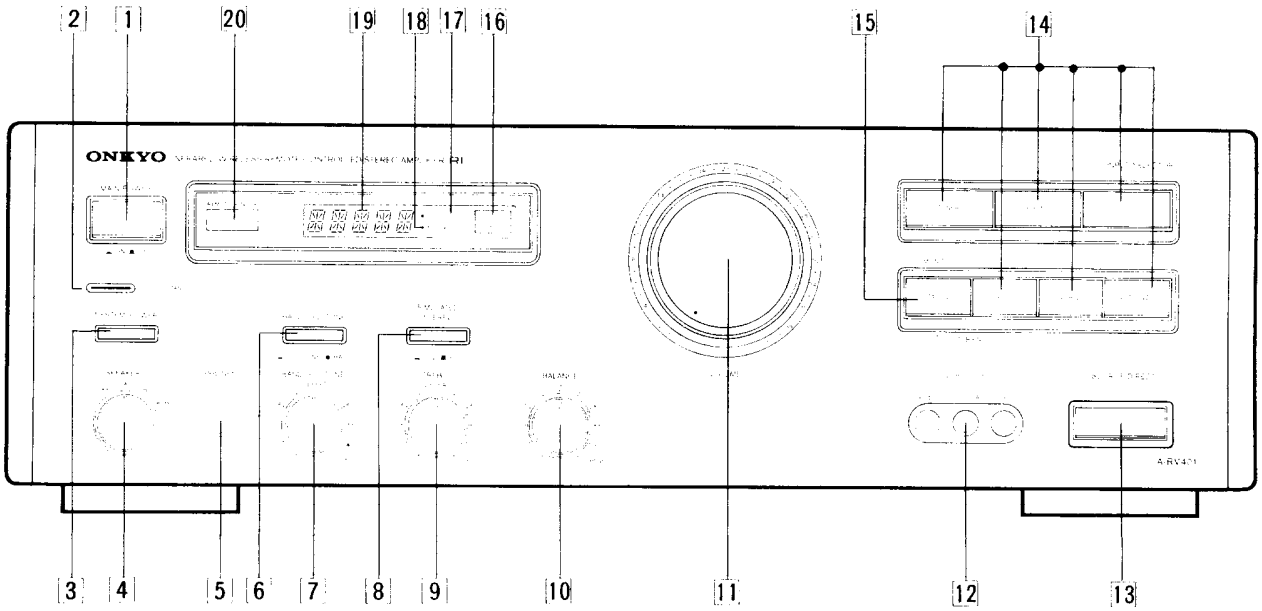


For this special cable
Contact an ONKYO Service Center.
For a turntable
(1/8" mm pin to 7 pin plug cable)
part number: 2010140

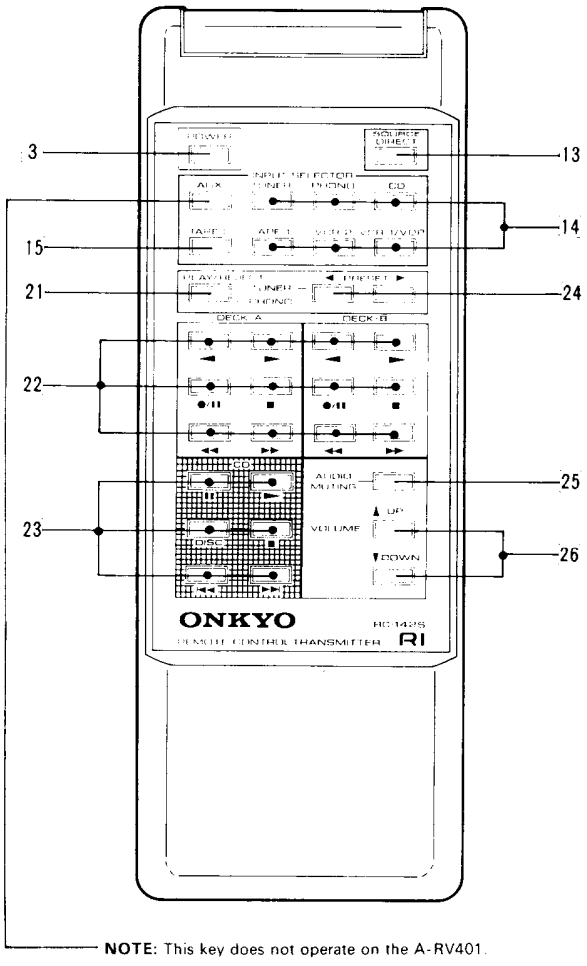
NOTE:

Remote control operation is not possible when only the remote control cable is connected. Remote control cable and connecting cable must be connected.

Front panel facilities



Remote Control Transmitter RC-142S



NOTE: This key does not operate on the A-RV401.

1 **Main Power Switch (MAIN POWER)**
Press this switch to set this unit to the standby mode in which power can be switched on and off by the front panel system power button and remote control power key.

2 **Stand-By/Received Indicator**
When this indicator is on, power ON can be performed by the remote control transmitter. The signal received from the remote control transmitter will also turn the indicator ON.

3 **System Power Button (SYSTEM POWER)**
When this unit is in standby mode, press this button to switch the on/off status of the power supply and the AC outlets on the rear panel. Power can also be turned on by using the remote control power key.

4 **Speaker Selector (SPEAKERS)**
This unit can drive two pairs of speaker systems at once. Use this selector to activate either or both speaker systems connected to the rear panel speaker terminals. In the OFF position, sound is heard only through the headphones.

OFF:	All speakers off—only headphones operate.
A:	Speakers A
B:	Speakers B
A + B:	Both speaker systems A and B.

5 **Headphone Jack (PHONES)**
Stereo headphones with a standard binaural plug can be connected here.

6 **Bass/Selective Tone Switch (BASS/SELECTIVE TONE)**
There are two positions to this push switch:

BASS:	In this position, the Bass Control/Selective tone Control [7] functions as the Bass Control.
SEL-TONE:	When this position is selected, the Bass Control/Selective Tone Control functions as the Selective Tone Control.

7 **Bass Control/Selective Tone Control Knob (BASS/SEL-TONE)**
This control functions as either Bass Control or Selective Tone Control depending on the position of the Bass/Selective Tone switch [6]. You can adjust to boost or attenuate the bass or selective tone.

8 **Simulated Stereo Switch (SIMULATED STEREO)**
Set this switch to the ON position to add a stereo-like effect to monaural sources (TV programs, mono VCR recording, etc.).

9 **Treble Control Knob (TREBLE)**
Adjust to boost or attenuate treble.

10 **Balance Control Knob (BALANCE)**
This is used to control the relative volume level of the left and right speaker systems or headphones.

11 **Volume Control Knob and Indicator (VOLUME)**
Turn clockwise to increase the volume level.
The volume can be adjusted manually and by the remote control transmitter's Volume UP/DOWN key [26]. When adjusted by remote control transmitter, the knob rotates, while the volume indicator above the knob flashes. This allows you to see the volume level from a distance.

12 **Video Cassette Recorder or Video Disc Player Input Jacks (VCR-1/VDP)**
These are the input jacks for the VCR or VDP. Refer to the System Connection section.

13 **Source Direct Button (SOURCE DIRECT)**
When you select SOURCE DIRECT, you can obtain a "pure" sound reproduction, bypassing the bass, selective tone, treble, balance and simulated stereo and using only the volume control. The "SOURCE DIRECT" on the display lights up. This button is also enabled by the key [13] of the remote control transmitter.

14 **Input Selector Buttons (INPUT SELECTOR)**
These buttons are used to select the desired program source. These buttons are also enabled by the key [14] of the remote control transmitter.

- **Audio Selectors**

TUNER: Press to listen to an AM or FM broadcast.
PHONO: Press to listen to the turntable.
CD: Press to listen to the compact disc player.
TAPE-1/DAT: Press to listen to the tape deck connected to the TAPE-1/DAT jacks.
When recording on tape deck 1, the just-recorded signal can not be monitored even if the tape deck is a 3-head model.

- **Video Selectors (Control audio and video signals)**

VCR-1/VDP: Press to obtain the video and audio signals from the Video Cassette Player or Video Disc Player connected to the VCR-1/VDP jacks (for playback only).
VCR-2: Press to obtain the video and audio signals from the Video Cassette Recorder connected to the VCR-2 jacks.

15 **Tape Monitor Button (TAPE-2/MONITOR)**
TAPE-2/MONITOR: Press to use the tape deck or graphic equalizer connected to the TAPE-2 jacks and outputs.
Note that dubbing can only be performed from tape deck 1 to tape deck 2. If tape deck 2 is a 3-head model, the just-recorded signal can be monitored as a recording is being made.
The button is also enabled by the key [15] of the remote control transmitter.

16 **Source Direct Indicator**
The SOURCE DIRECT indicator will come on when source direct button [13] is pressed.

17 **T-2 Monitor Indicator**
When the tape monitor button [15] is pressed, the indicator light will come on.

18 **Muting Indicator**
Muting can be performed by the remote control transmitter Audio Muting key [25]. When muting is ON, this indicator will light.

19 **Input Selector Display**
When one of the input selector buttons [14] is pressed, the name of the corresponding input source is displayed. When the tape monitor button is also in use, the display will show TAPE 2 for 2 or 3 seconds, and then change to show the input source.

20 **Remote Control Sensor**
This sensor receives the remote control signals.

• Remote Control Transmitter Controls (RC-142S)

21 **Phono Operation Key (PLAY/REJECT)**
This key is used to operate the turntable. The phono operation key can be used only when the PHONO input selector button [14] has been pressed. Each time the phono operation key is pressed, the remote control transmitter alternately emits the play or reject command. Refer to the turntable instruction manual for additional instructions on operating the turntable.

NOTE:

Before starting record play using remote control, confirm that there is a record on the platter. If there is no record, the stylus will be lowered to the platter, resulting in serious damage to the stylus.

22 **Tape Operation Keys (DECK-A, DECK-B)**
These keys control ONKYO double cassette tape decks that can be remote controlled. Use the DECK-B keys to control single cassette tape decks with the **RI** mark.

◄ (REVERSE PLAY): Press to play back a tape in the reverse direction.
► (FORWARD PLAY): Press to play back a tape in the forword direction.
●/❚❚ (REC PAUSE): Press to enter the recording stand-by mode.
■ (STOP): Press to stop tape deck operation.
◄◄ (FAST REWIND): Press to wind the tape rapidly backward.
►► (FAST FORWARD): Press to wind the tape rapidly forward.

23 **CD Operation Keys (CD)**
These keys are used to operate an ONKYO CD player with the **RI** mark.

❚❚ (PAUSE): Press to pause the CD playback.
► (PLAY): Press to play the CD player.
■ (STOP): Press to stop the CD player.
DISC: Press to use for sequential selection of discs in the order they were loaded on the CD changer.
|◄◄ (UP): Press to go back to the beginning of the current track and again to skip back to the previous track.
►►| (DOWN): Press to skip to the next track.

24 **Tuner Operation Keys (◄ PRESET ►)**
When the UP (►) or DOWN (◄) key is pressed, the next higher or lower memory channel is recalled. Each time UP or DOWN key is pressed, the following memory channel in the corresponding direction is recalled. If the key is held down the memory channel will increase or decrease continuously until key is released.

25 **Audio Muting Key (AUDIO MUTING)**
This key temporarily switches off the sound from the speaker or headphone. Pressing this key will operate the A-RV401's audio muting circuit. The audio muting indicator [MUTING] will light. Pressing the key again will turn off the audio muting.

26 **Volume Keys (▲ UP, ▼ DOWN)**
This key has the same function as that of the volume control [11]. The volume level can be adjusted by pressing the UP or DOWN key, with the volume control knob rotating simultaneously.

Operations

NOTE:

- Before turning Power on, confirm that all connections have been made properly.
- For remote control operation refer to the Remote Control Transmitter Controls section.

Standby Mode

The standby position of controls and switches serves as the starting point for all modes of operation. When the system power button is then turned on (while the main power switch [1] is also on), all controls except the speaker selector, bass/selective tone, treble, volume, balance controls, simulated stereo are in the same setting as when the system power button was last switched off.

[4]	Speaker Selector	Selected in accordance with connections
[6]	Bass/Selective Tone Switch	as desired
[7]	Bass Control/Selective Tone Control Knob	DEFEAT
[8]	Simulated Stereo Switch	as desired
[9]	Treble Control Knob	DEFEAT
[10]	Balance Control Knob	DEFEAT
[11]	Volume Control Knob	minimum (all the way to the left)
[1]	Main Power Switch	ON

Radio Reception

1. Press the TUNER Input Selector button [14], and confirm that TAPE-2 button [15] is off.
2. Follow the operating instructions of the Tuner.

Phonograph Records

1. Press the PHONO Input Selector button [14], and confirm that TAPE-2 button [15] is off.
2. Follow turntable operating instructions.

Compact Disc Player

1. Press the CD Input Selector button [14], and confirm that TAPE-2 button [15] is off.
2. Follow the operating instructions of the CD player.

Tape Playback

1. Press the TAPE-1/DAT Input Selector button [14] or TAPE-2 button [15] depending on which pair of TAPE PLAY jacks the deck is connected to. (Be sure to connect tape deck with the RI mark to the TAPE-1/DAT jacks.)
2. Follow tape deck operating instructions for playback.

NOTE:

The direct function feature

When a tuner, compact disc player, and tape deck with the RI mark are connected together, the direct function feature can be used.

Just by directly operating the desired component (tuner, compact disc player, or tape deck), the A-RV401's input selector automatically switches to that component. The component that was being used stops, and the desired component starts operation. Therefore, it is not necessary to switch the A-RV401's input selector when changing listening sources.

Example

When the compact disc player's play button is pressed, the A-RV401's input selector will switch automatically to "CD." If the current listening source was a tape deck, tape playback will stop and the compact disc player will start playing.

Note:

The direct function feature does not apply to turntable.

Tape Recording

1. Radio: Press the TUNER Input Selector button.
   Records: Press the PHONO Input Selector button.
   CD: Press the CD Input Selector button.
   VCR-1/VDP: Press VCR-1/VDP Input Selector button.
   VCR-2: Press the VCR-2 Input Selector button.
2. Put the tape deck connected to the TAPE-1/DAT jacks or TAPE-2 jacks in the recording mode.
3. Set the proper recording level using the controls on the tape deck used for recording. During recording and dubbing operations, never change the positions of any controls (bass, treble, etc.) on this unit.

Tape-to-Tape Duplicating

1. Connect two tape decks to the A-RV401 as shown in the System Connections diagram.
2. Load the original tape in the tape deck connected to the TAPE-1/DAT jacks.
3. Load the blank tape in the tape deck connected to the TAPE-2 jacks.
4. Press the TAPE-1/DAT [14] and TAPE-2 buttons [15].
5. Put the tape deck connected to the TAPE-1/DAT jacks in the playback mode and the other deck in the recording mode. Follow tape deck operating instructions.
6. The signal returned from the tape deck connected to the TAPE-2 jacks to the A-RV401 can be monitored via speaker or headphones only if the tape deck is 3-head model.

Graphic Equalizer

1. Connect the graphic equalizer to the TAPE-2 jacks.
2. If a second tape deck is used, connect it to the tape jacks on the graphic equalizer.
3. Press the TAPE-2 button [15].
4. Follow the graphic equalizer operating instructions.
5. To record an equalized signal, use tape deck 2 (connected to the equalizer) for recording.

Video Disc Player Playback

1. Connect the video disc player to the A-RV401 as shown in the System Connections diagram. Then connect a monitor or TV having a video input jack to the A-RV401 VIDEO "MONITOR OUT"jack.
2. Press the VCR-1/VDP Input Selector button [14].
3. Switch on the monitor TV, and start playback of the video disc player. The picture will be sent to the monitor TV and sound to the speakers.
4. Refer to the video disc player instruction manual for additional information.

Video Cassette Recorder (or Player) Playback

1. This unit has facilities for two video cassette recorders. Connect the VCR to the A-RV401 as shown in the System Connections diagram. Note that a playback-only video unit has no video or audio input jacks. Remember to switch the corresponding VCR-2 MODE switch to MONO when using a monaural VCR-2. (See page.4.) If this is not done, sound will be heard from only one speaker. If the MONO setting is used with a hi-fi (stereo) VCR, even stereo sound will be heard in the monaural mode. Then connect a monitor TV or TV having a video input jack to the A-RV401 VIDEO "MONITOR OUT" jack.
2. Press the VCR-2 Input Selector button [14].
3. Switch on the monitor TV, and start playback of the VCR. The picture will be sent to the monitor TV and sound to the speakers.
4. Refer to the video cassette recorder instruction manual for additional information.

Video Disc Player to Video Cassette Recorder Dubbing

Video disc programs can be recorded onto VCR-2.

1. Load a disc in the video disc player, and a blank tape in VCR-2.
2. Press the VCR-1/VDP Input Selector button [14].
3. Begin playback of the video disc player and recording of the VCR-2.
4. VCR-1 to VCR-2 duplication is possible when a second VCR output is connected to the VCR-1/VDP jacks.
5. Refer to the video disc player and VCR instruction manuals for additional information.

Using the remote control transmitter

- For details on the function of each control, see the description in "Remote Control Transmitter Controls (RC-142S) on page 6.
- **Batteries**

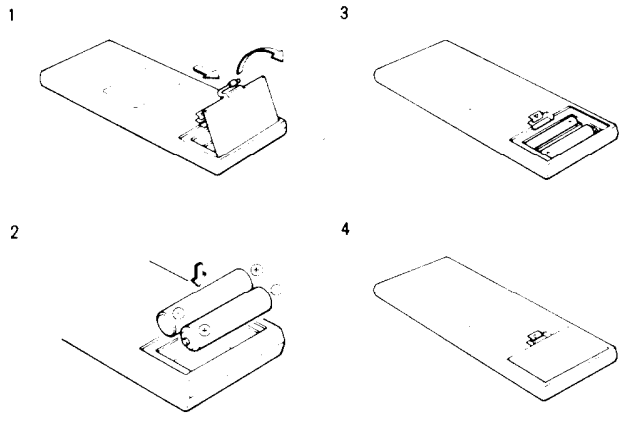
  The remote control transmitter is powered by two batteries. Before using this unit for the first time, insert the two batteries (included) as shown in the diagram. The remote control transmitter has no on/off switch. Average battery life is one year. This period may be shorter depending on the frequency of use and environment (temperature and humidity) in which the remote control transmitter is used. If the remote control transmitter does not operate even though front panel controls function normally, the batteries should be replaced. Use only batteries listed in the following chart.

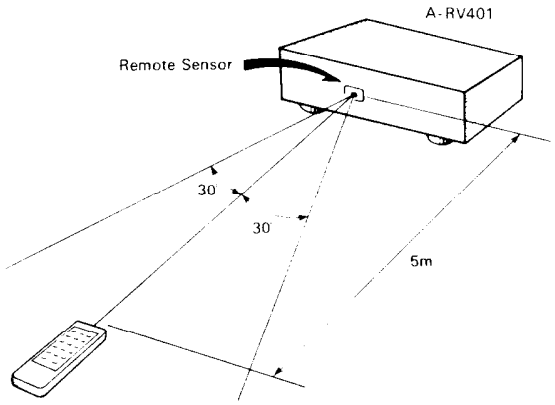
Type	Voltage	Size
Manganese	1.5V	AA R6 UM-3

NOTE:

1. Do not leave an expired battery in the case as it may leak or damage the battery case.
2. When inserting the batteries, be sure the (+) and (−) ends are properly aligned.
3. Do not use nickel-cadmium (rechargeable) batteries.
4. Do not use one specified (manganese) battery and one alkaline battery at the same time.
5. Replace both batteries at once; do not use one old and one new battery together.

Transmitter Battery Replacement





Remote control transmitter
RC 142S

- Precautions

1. Remove the batteries if the remote control transmitter is not going to be used for a long time.
2. The batteries of the remote control transmitter must be replaced periodically. Remember, however, that commands will be received only when the main power switch of the A-RV401 is on.
3. This unit uses infrared rays. Therefore, commands may not be received properly if the front panel of the A-RV401 is exposed to bright light. To prevent this from occurring, place the A-RV401 so that it is not directly exposed to a bright light.
4. If the A-RV401 is placed inside an audio rack behind a glass door, the door should not use colored glass or have any decorations on it since this could shorten the range or prevent commands from being received.
5. Use of other infrared remote control devices in the same room may cause interference.
6. The transmitter operates up to a distance of about five meters (16 feet), the transmitting window must always be pointed at the reception window when a command is sent to the A-RV401.
7. If this remote control transmitter does not operate properly, confirm that the batteries are not dead. If the problem persists, contact your ONKYO service center.

Trouble shooting guide

Trouble	Cause	Remedy
No power.	• The power cord is not plugged in. • AC fuse blown.	• Plug in the power cord. • Contact ONKYO Service Center.
Power but no sound.	• Tape monitor on. • Bad connections. • Amplifier protection circuitry has been activated.	• Switch to off. • Check input leads, pin plugs, etc. • Contact Service Center.
Hum, low frequency noise.	• Poor or no input ground. • Poor or no phono motor ground.	• Check outer conductor of input plugs. • Check for proper ground connection.
Howling when the volume is turned up.	• Turntable and speakers are too close together.	• Move them farther apart.
Rough or scratchy sound. High range is not clear.	• Stylus of pick-up is worn. • Stylus is dirty. • Treble control is too high.	• Replace. • Clean. • Turn treble control down.
Front panel controls function but remote control transmitter does not.	• No batteries in remote control transmitter. • Batteries have worn out.	• Insert batteries. • Replace batteries.

Specifications

Power Output: **100 watts per channel, min RMS, at 8 ohms, both channels driven from 20 Hz to 20 kHz, with no more than 0.08% THD.**

Total Harmonic Distortion	0.08% at rated power	
IM Distortion	0.08% at rated power	
Damping Factor:	40 at 8 ohms	
Frequencey and Response:	15–30,000 Hz ±1 dB	
Sensitivity and Impedance	Phono:	2.5 mV/50 kohms
	Tuner/CD/VCR-1, VDP:	150 mV/50 kohms
	Source Direct:	150 mV/50kohms
	Tape/VCR-2 Play:	150 mV/50 kohms
	Tape/VCR-2 Rec:	150 mV/3 kohms (phono)
Phono Overload:	150 mV RMS at 1 kHz, 0.08% THD (REC)	
Bass Control:	±10 dB at 100 Hz	
Treble Control:	±10 dB at 10,000 Hz	
Selective Tone Control	±15 dB at 50 Hz/±6 dB at 10 kHz	
Signal to Noise Ratio (IHF-A):	Phono:	80 dB (5 mV input)
	Source Direct (CD):	102 dB

General

Power Supply:	USA & Canadian models:	AC 120V, 60 Hz
	Worlewide models:	AC 120V and 220 V switchable, 50/60 Hz
Dimensions (W) × (H) × (D):	455 × 140 × 330 mm	
	17-15/16" × 5-1/2" × 13"	
Weight:	10.1 kg, 22.2 lbs.	

Remote Control Transmitter RC-142S

Transmitter:	Infrared
Signal range:	Approx. 5 meters, 16ft
Power supply:	Two "AA" batteries (1.5 V × 2)
Dimensions (W × H × D):	64 × 18 × 176 mm
	2-1/2" × 11/16" × 6-15/16"
Weight:	130 grams. 4.6 oz. (including batteries)

Specifications and features are subject to change without notice.

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